

Welcome

MontCAS

Montana Comprehensive Assessment System

Assessment/Data Conference
Getting It Right
Technology Requirements for Online Testing
January 2015



Topics

- Site Readiness
- Network Requirements
- Hardware and Software Requirements
- Secure Browser Installation
- Network Diagnostics and Configuration

Objectives

By the end of this presentation, you should be able to:

- understand your role and responsibilities;
- prepare for the Smarter Balanced tests at your school;
- install the secure browser; and
- troubleshoot technical problems during the tests.

Technology Coordinator Tasks

- Logins and passwords
- Minimum system requirements
- Secure Browser
- Determining system readiness/network capacity
- Troubleshooting technical issues

Network Requirements

Network Connection:

- A stable, high-speed (wired or wireless) network and an adequate Internet connection are required for the test.
- The average response time for each assessment depends on the reliability and speed of your school's Internet connection.

Network Requirements

Network Configuration:

- Content filters, firewalls, and proxy servers should be configured to allow traffic on the protocols and to the Smarter Balanced servers.
- Session timeouts on proxy servers and other devices should be set to values greater than the average scheduled testing time. For example, if test sessions are scheduled for 60 minutes, consider session timeouts of 65–70 minutes.
- Web proxy servers must be configured to NOT cache data received from Smarter Balanced servers.
- For any device that performs traffic shaping, packet prioritization or quality of service, the IP addresses to be used for testing should be given a high priority to ensure the best performance.

Network Requirements

Network Configuration:

- Montana has a dedicated Measured Progress URL:

<https://MTSmarter.measuredprogress.org>

- Provides access to practice and training tests
- In weeks to come, secure portal capabilities will become active
 - Sign-in will allow access for individuals to all Smarter Balanced components to which they have been granted permissions.

Network Requirements

Network Configuration:

- Content filters, firewalls, and proxy servers should be configured to allow the URL group.

URL
https://MTSmarter.measuredprogress.org

Network Requirements

Performance Factors:

- Bandwidth
- Total number of students simultaneously testing
- Secure Browser installation
- Wireless networking configuration

Network Performance

Bandwidth:

- At least 20Kbps bandwidth per student being tested
- Affected by both Local Area Network (LAN) traffic and internet traffic from the router
- LAN should always be analyzed to determine potential traffic bottlenecks
- Use vendor-provided diagnostic tool if offered
- Online diagnostic tool available at www.educationsuperhighway.org

Network Diagnostics Tool

Network Traffic:

- Network performance may slow when large numbers of students are testing at once.
- Multiply the number of students being tested by 20Kbps to get an estimate of needed bandwidth, and compare with the network speed test.
- Perform network analyses at different times to ensure adequate capacity.

Network Performance

Wireless Security:

- Wireless traffic must use encryption.
 - Wi-Fi Protected Access II (WPA2)
 - Advanced Encryption Standard (AES)

Access Points:

- Wireless access points have limits on total bandwidth and number of simultaneous devices.
- Access the practice and training tests through the Secure Browser to ensure adequate capacity.

System Requirements

Computers		
Operating System	Minimum Requirement for Current Computers	Recommended Minimum for New Purchases
Windows XP (service Pack 3), Vista, 7, 8.0, 8.1 Server 2003 and 2008	Pentium 233 MHz processor 128 MB RAM 52 MB hard drive free space Minimum screen resolution 1024x768	1 GHz processor 1 GB RAM 80 GB hard drive
Mac OS X 10.4.4–10.9	Intel x86 or PowerPC G4 or G5 processor 512 MB RAM 200 MB hard drive free space Minimum screen resolution 1024x768	
Linux Fedora Core 6 (K12LTSP 4.2+) Ubuntu 9-12	Pentium II or AMD K6-III 233 MHz processor 64 MB RAM 52 MB hard drive Minimum screen resolution 1024x768	

Supported Mobile Devices

Operating System	Supported Tablets	Browsers for TA Sites	Browsers for Student Sites
Android 4.0.4 to 4.4	Google Nexus 10 Motorola Xoom Motorola Xyboard Samsung Galaxy Note (10.1) Samsung Galaxy Tab 2 (10.1)	Native browser GoogleChrome	Android Secure Browser (AIR Mobile Secure Browser)
Chrome v31 to v35	Chromebook	GoogleChrome	GoogleChrome
iOS 6.0 to 7.1	iPad 2 and above	Safari	iPad Secure Browser

Secure Browser

- The Secure Browser prevents students from accessing other computer or Internet applications and copying test information during testing.
- Training and Practice Tests can be accessed with either the secure browser or with Chrome, Safari, Internet Explorer 10 and 11, or most native tablet Web browsers.

Secure Browser

Where to Obtain Secure Browser

Computer/Device	Secure Browser Location
Windows, Mac, and Linux computers	MTSmarter.measuredprogress.org
Android tablets	Play Store
iPad tablets	App Store
Google Chromebooks	Chrome Web Store

Secure Browser Installation

Installation Method:

- Download the Secure Browser from your state's specified location and install it.
- Download and save the Secure Browser onto a media device (such as a flash drive) and copy and install the files on each computer.
- Download and save the Secure Browser to a network folder and then copy and install the files on each computer.

Secure Browser Installation Windows

**MSI file type enables deployment
using a number of tools:**

- Active Directory Group Policy;
- Microsoft SMS;
- Microsoft SCCM;
- Microsoft WSUS; and
- Windows NT Batch

Secure Browser Installation

Mac and Linux

Mac

- DMG file type enables deployment using Apple Remote Desktop.
 - Munki
 - Filewave

Linux

- TAR file type enables deployment using a number of tools including the following:
 - Shell scripts
 - Puppet

Secure Browser Installation Tablets

Android Tablets

- The secure browser can be downloaded from the Google Play store.

iPads

- The secure browser can be downloaded from the App store.

Secure Browser Installation Chromebooks

- Chromebooks app is available at the Chrome Web Store
- Installation varies for managed and non-managed Chromebooks
- Instructions for both types can be found in the Technical Specifications Manual

Pop-Ups

- Configure browsers on Test Administrator devices to allow pop-ups from your state vendor's websites.
- Student computers should have their pop-up blockers disabled.

Secure Browser Configuration

Mac 10.7 and Above

Spaces

- Spaces feature must be disabled.
- See instructions in the Secure Browser Installation Manual.

Firewall, Content Filter, and Proxy Servers

Description	URL	
Download the Smarter Balanced Secure Browser	https://MTSmarter.measuredprogress.org	
Test Administrator Training and Training Tests sites	“	
Test Administrator Interface	“	
Administration and Registration Tools (ART)	“	

Embedded Supports and Accommodations

- The Smarter Balanced open source platform contains the same embedded supports and accommodations as the Field Test.
- The requirements presented are adequate for all embedded supports
- For American Sign Language videos, schools may want to schedule students during a window where there is less traffic on school internet
 - ASL videos are large, and can cause delays on server traffic in schools with low bandwidth issues

Text-to-Speech

- Voice technology must be available and functioning for students who require this accommodation.
- For Windows and Mac operating systems, default voice packs are generally pre-installed.
- Linux users may need to install an open-source text-to-speech package if one was not installed with the operating system.
- Detailed instructions can be found in the Technical Specifications Manual.

Volume control and Headphones

- Check volume prior to opening secure browser to ensure that volume is set properly
- Plug in headphones and check to make sure they are working and that volume is appropriate

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Measured Progress Help Desk

- For
 - Smarter
 - Science CRT and CRT-Alt

888-792-2741

montanahelpdesk@measuredprogress.org

Thank you!

Further Information:

opi.mt.gov/curriculum/MontCAS/index.html?gpm1_9